lightspeed™

iR Media Connector

Infrared Media Connector

User Manual

CONGRATULATIONS!

Congratulations on your purchase of the Lightspeed™ IR Media Connector. The iR Media Connector (iRMC) is designed to interface auxiliary audio sources, such as computers, MP3 or DVD players with a Lightspeed infrared classroom audio system.

The iRMC eliminates the need to run wires or cables from the audio source to the amplifier unit. Simply position the iRMC near the audio source, plug it in and the signal is transmitted to the amplifier wirelessly.

Like Lightspeed's entire line of classroom audio systems, the iRMC is designed with the teacher in mind.

- Accommodates up to three auxiliary audio sources
- Powered by a standard AC outlet or a computer USB port
- Automatically powers up when a signal is indicated
- A single master volume control for ease of use

The iRMC takes only minutes to set up and is an ideal accessory to the REDCAT, no install system, as well as the entire line of infrared classroom audio systems by Lightspeed.

SAFETY INSTRUCTIONS AND CERTIFICATIONS

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure, that may be sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CERTIFICATIONS

Complies with 72/23/EEC Low Voltage Directive and 89/336/EEC Electromagnetic Compatibility Directive. Compliance was demonstrated to the following specifications as listed in the Official Journal of the European Union:

EN 60950: Electrical Safety – A1:1993, A2:1993, A3:1993, A4:1997

EN 55022: RF Emissions, Information Technology Equipment

EN 55024: EMC Immunity Standard

EN 61000-3-2: Harmonics

EN 61000-3-3: Voltage Fluctuation

Lightspeed Technologies launched a formal product recycle program in Europe that complies with the European Union Directive 2002/96/EC on Waste Electrical and Electronic Equipment ("WEEE Directive"). Please visit our website at www.lightspeed-tek.com for more information.

IR Media Connector is manufactured using lead-free processes and is free of other materials harmful to the environment. It conforms to the most stringent new European guidelines for consumer products (RoHS).

1. **Read Instructions—**All the safety and operation instructions should be read before this Lightspeed product is operated.
2. **Retain Instructions—**The safety and operating instructions should be kept for future reference.
3. **Heed Warning—**All warnings on this Lightspeed product and in these instructions should be followed.
4. **Follow Instructions—**All operating and other instructions should be followed.
5. **Water and Moisture—**This Lightspeed product should not be used near water.
6. **Heat—**This Lightspeed product should be situated away from heat sources such as radiators, etc.
7. **Power Sources—**This Lightspeed product should be connected to a power supply only of the type described in the operation instructions or as marked on this Lightspeed product.
8. **Power Cord Protection—**Power supply cords should be routed so that they are not likely to be walked upon or pinched by items placed upon or against them.
9. **Object and Liquid Entry—**Care should be taken so that objects do not fall onto and liquids are not spilled into the Lightspeed product.
10. **Damage Requiring Service—**This Lightspeed product should be serviced only by qualified service personnel. The user should not attempt to service this Lightspeed product.
11. **Prevent Electric Shock—**Do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

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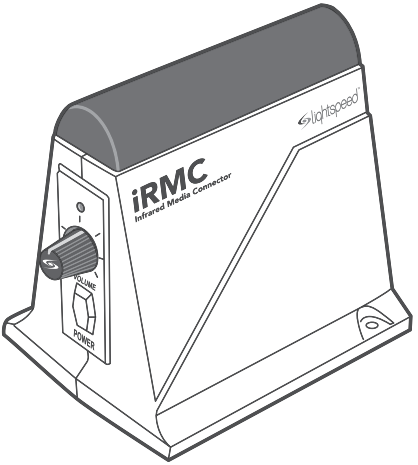
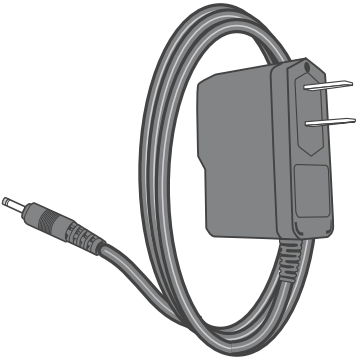
SECTION 1

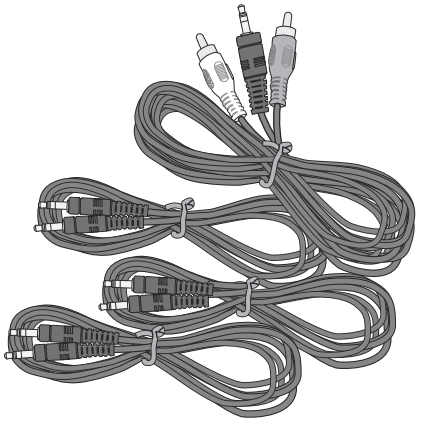
iRMC Overview

IRMC COMPONENTS

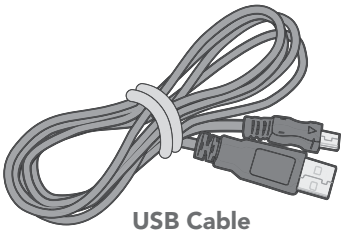




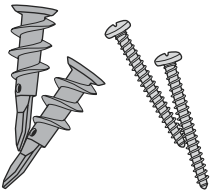
Lightspeed iR Media Connector and Power Supply



Audio Cable Kit



USB Cable



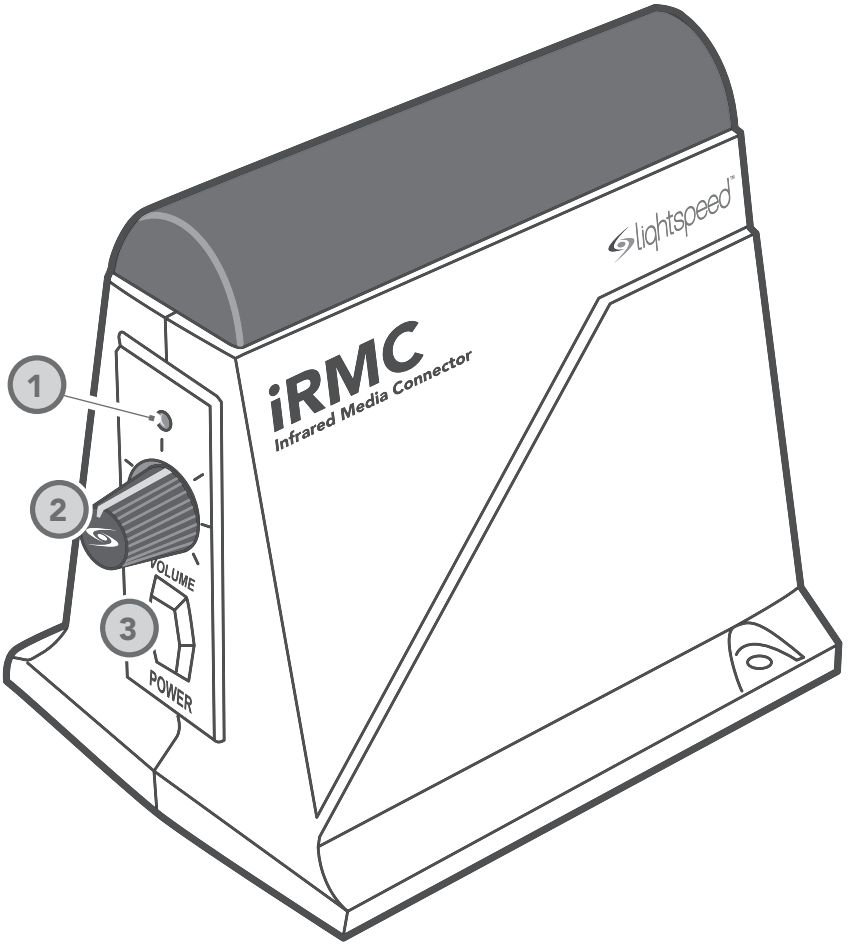
Screws and Anchors for optional wall mounting

Helpful Hint

Keep ALL packaging materials. If the system must be returned, using the original packing material will be quick, convenient and prevent damage.

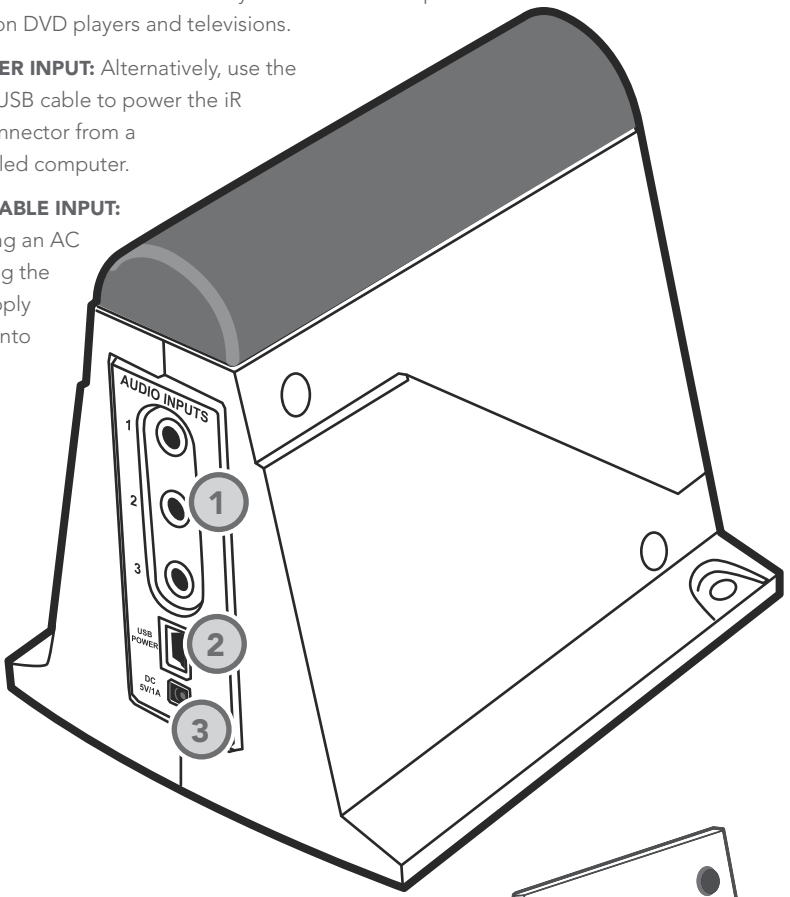
FRONT PANEL CONTROLS AND CONNECTIONS

1. **STATUS LIGHT:** Indicates current state of the iR Media Connector. The light will glow amber when in standby, and blue when it is transmitting a signal. For more information on the status light, see page 12, Understanding the Status Light
2. **VOLUME CONTROL:** Controls the output volume of the iRMC. Factory pre-set for most applications.
3. **POWER BUTTON:** Used to turn the iRMC off or on.



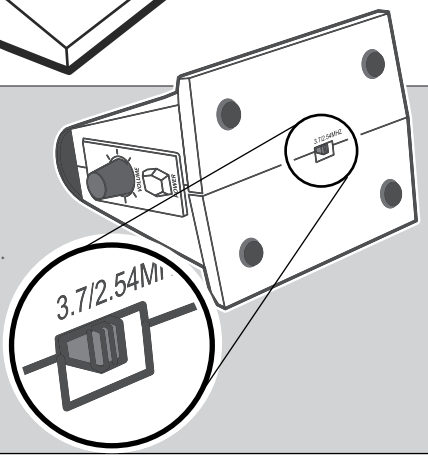
REAR PANEL CONTROLS AND CONNECTIONS

1. **THREE AUDIO INPUTS:** Connect standard audio devices to any of the 3.5mm stereo inputs. A provided cable allows connectivity to RCA stereo outputs common on DVD players and televisions.
2. **USB POWER INPUT:** Alternatively, use the provided USB cable to power the iR Media Connector from a USB-enabled computer.
3. **POWER CABLE INPUT:** When using an AC outlet, plug the power supply (5V/1.0A) into this jack.



Helpful Hint

Although rare, you may have a Lightspeed system using the alternate "Group 2" frequencies. If this is the case, simply switch the frequency selection switch located on the bottom of the iRMC to the appropriate frequency.

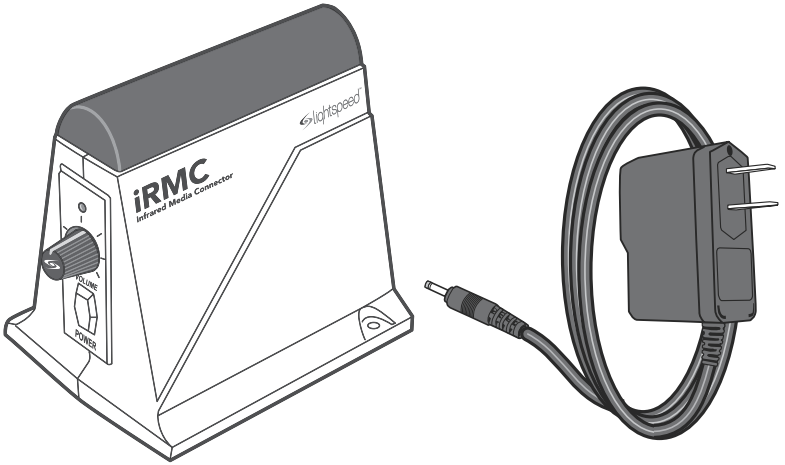


SECTION 2

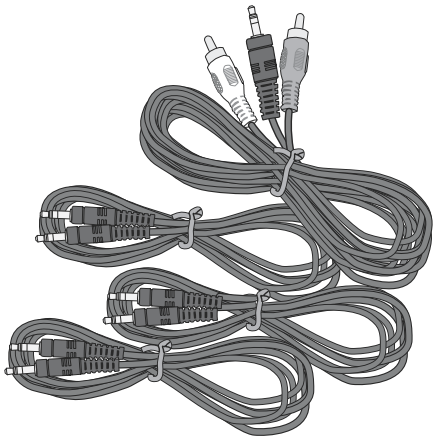
Set-up

1. UNPACKING YOUR iRMC

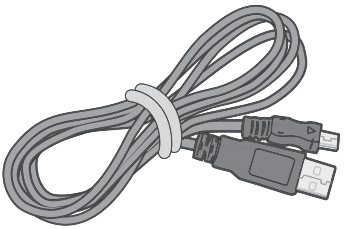
Ensure that you have received all of the iRMC components.



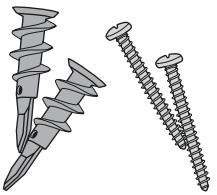
Lightspeed iR Media Connector (iRMC) and Power Supply



Audio Cable Kit



USB Cable



Screws and Anchors for optional wall mounting

2. SETTING UP THE IR MEDIA CONNECTOR

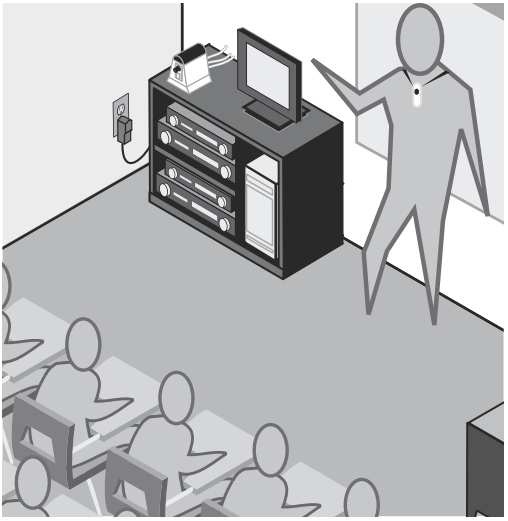
DETERMINE SET-UP METHOD

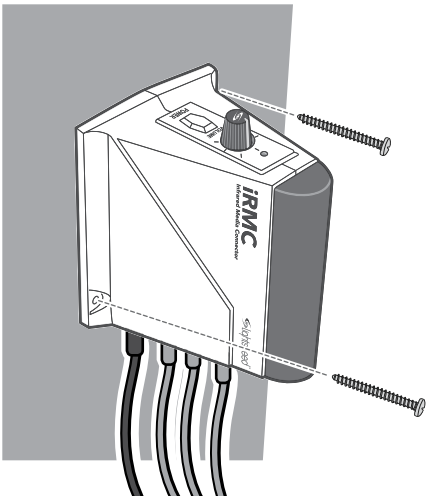
Choose a location for the iR Media Connector that is convenient to the audio source and power supply.

The iRMC can be placed on a counter or wall mounted. Determine the best location for your room. Use the guidelines below when selecting the site.

Counter:

- 3-6 feet off of the ground to allow for good transmission.
- Not enclosed in a cabinet or otherwise obstructed.





Wall-mount:

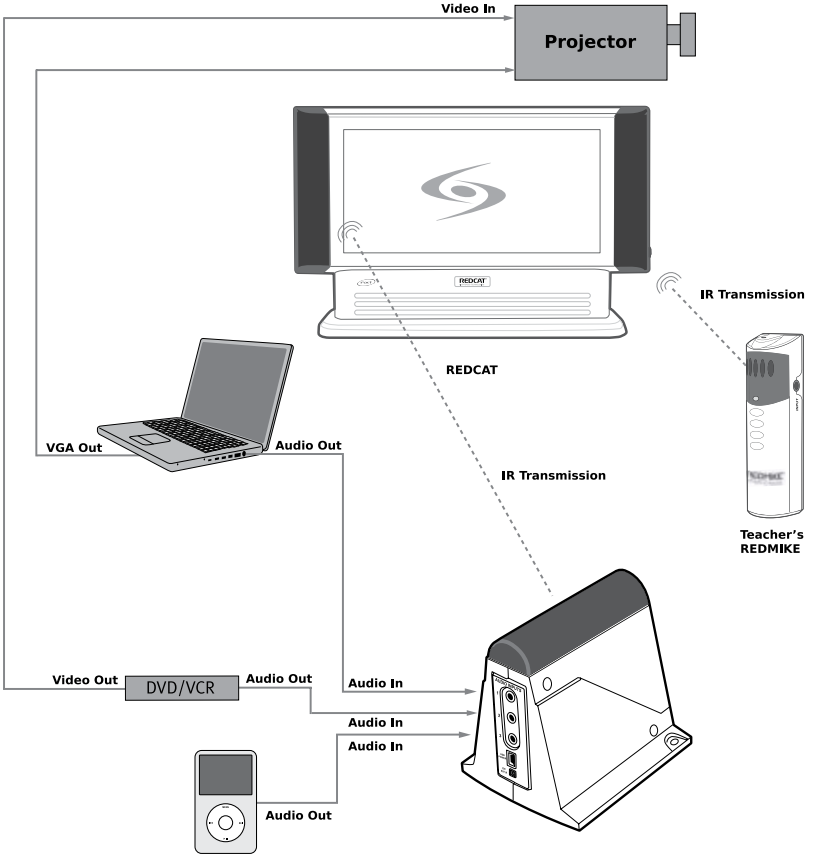
- Recommended 4 feet off of the ground to allow for unobstructed transmission and access to controls.
- Recommended vertical mounting with volume knob pointed up to prevent undue stress on cables.
- Attach to the wall using the included mounting screws and, if required, drywall anchors.

Helpful Hint

Although the iRMC does not require a direct line of sight to the iR sensors, it functions best when no obstructions are between the two devices.

3. AUDIO INTEGRATION

IR MEDIA CONNECTOR BLOCK DIAGRAM



The iR Media Connector is designed to integrate multiple audio sources quickly and easily.

4. CONNECTING THE POWER SUPPLY

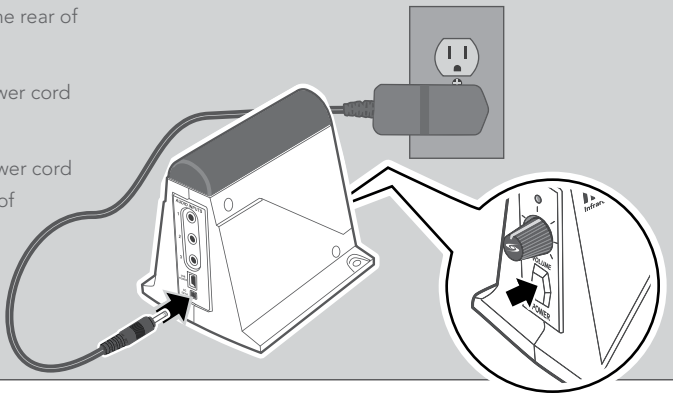
The iR Media Connector can be powered in either of two ways:

- AC power from a nearby electrical outlet
- USB power from a computer

Use whichever power source is most convenient to the location of the iRMC.

AC POWER

1. **Locate** the DC port at the rear of the iRMC.
2. **Place** the AC end of power cord into an electrical outlet.
3. **Place** the DC end of power cord into DC port at the rear of the iRMC.
4. **Press** the power-on button located on the front of the iRMC.

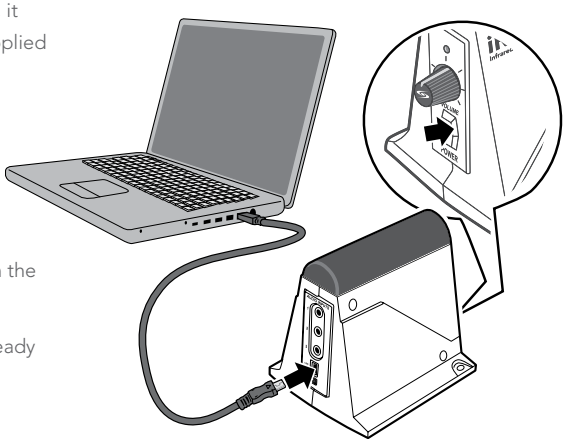


USB POWER

If the primary audio source is a computer, it might be more convenient to use the supplied USB cable to power the iRMC from that computer.

1. **Insert** USB cable into iRMC.
2. **Insert** USB cable into any available USB port on the computer.
3. **Press** the power-on button located on the front of the iRMC.

You have now set-up the iRMC and it is ready to use.



Helpful Hint

Lightspeed provides an international power kit for use of the iRMC outside of North America.

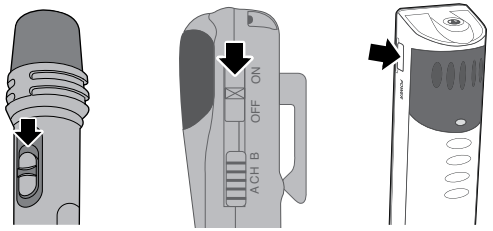
SECTION 3

Operation

INITIAL SET-UP

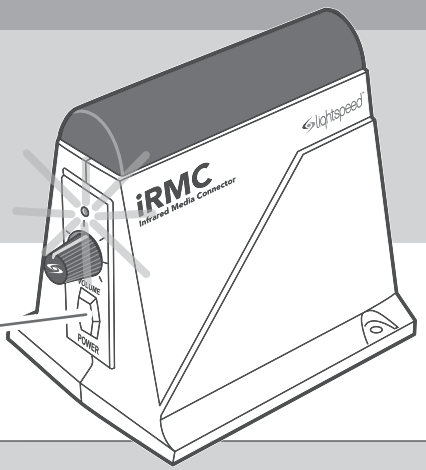
1. TURN OFF SECOND MICROPHONE

The iR Media Connector uses the same channel (channel B) as the optional second microphone (REDMIKE, LT71, or HM70). As a result, they cannot be used simultaneously. If you have a second microphone, turn it off before transmitting audio from the iRMC.



2. UNDERSTANDING THE OPERATING MODES

The iRMC status light has three states:	
STANDBY	When turned on the iRMC is in standby mode indicated by an amber light. ***NOTE:*** *Five minutes after the audio signal has stopped, the iRMC will switch to standby mode.*
TRANSMITTING	A blue light indicates the iRMC is in the transmit mode.
POWERED OFF	No light indicates power off.



Power button toggles between "Power On" and "Power Off."

Helpful Hint

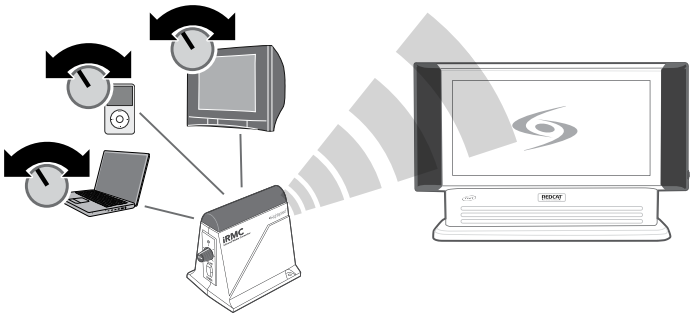
The iRMC consumes very little power when on standby. It is not necessary to power off or unplug your iRMC at the end of the day.

INITIAL SET-UP (continued)

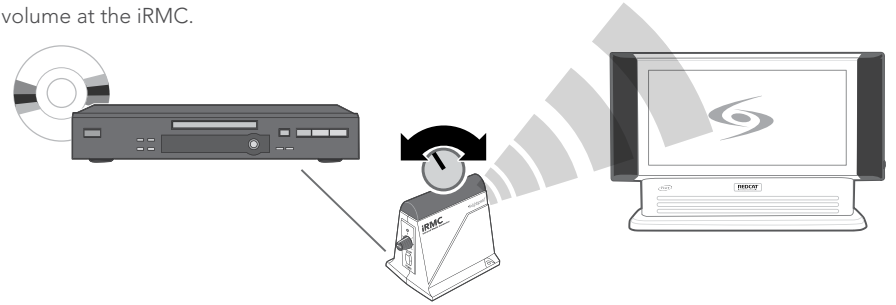
3. VOLUME ADJUSTMENT

The iR Media Connector volume is preset for most standard audio signals. If you need to turn the volume up or down, follow this procedure:

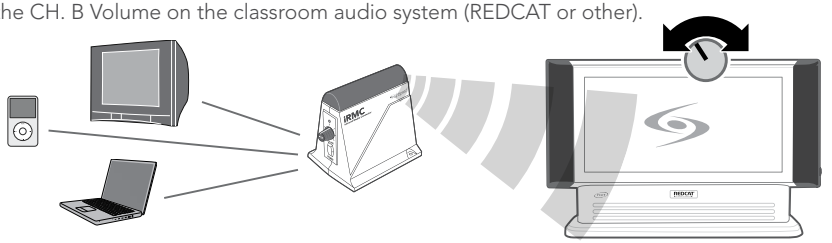
1. **Adjust** the volume at the computer, television, or other audio source if possible.



2. **If** the audio source does not have a volume control (such as many DVD players) adjust the volume at the iRMC.



3. **If** the first two options do not give optimum volume level, the last place to adjust the volume is the CH. B Volume on the classroom audio system (REDCAT or other).



Helpful Hint

If you adjust the CH B volume on the classroom audio system, you will also be changing the volume for your second microphone. Return the CH B volume knob to the original position before turning the second microphone back on.

SECTION 4

Troubleshooting Guide and Warranty

TROUBLESHOOTING GUIDE

No Audio

- **Confirm** that you are plugged into an AC power outlet or USB port.
- **Check** power light. If the light is off, press the power button.
- **Confirm** that all audio cables are fully inserted to the proper ports.
- **Confirm** that you are not using a Group 2 classroom audio system. If it is a Group 2 system, move the switch on the bottom of the iR Media Connector to the 3.7 frequency setting. A Group 2 system will be represented with a black colored microphone.
- **Relocate** the iRMC so that the top of the unit is not obstructed.

Low Volume

- **Check** volume setting at the audio source.
- **Check** volume setting at the iRMC. For most situations the middle setting is most appropriate, but adjust if necessary.
- **Check** CH B volume setting of the classroom audio system amplifier.

Fluctuating volume levels:

- **The iRMC** is designed with a volume limiter which prevents distortion due to over-driving the speaker.
- **Turn down** the volume of the audio source. Turn up iRMC volume as needed.

Static and Audio Dropouts

- **If** using a second microphone, confirm that it is powered off.
- **Make** sure the infrared emitters on the top of the iRMC are not being covered and the unit is in the open and not in a closet or cabinet.

If you review these instructions and still have questions, write down the serial number and model number of your system and call Lightspeed Technical Services at 800.732.8999, 5 a.m. – 5 p.m. PST.

IR MEDIA CONNECTOR SPECIFICATIONS

Carrier Frequencies	2.54 MHz and 3.7 MHz
Frequency Response	80 Hz to 10 kHz ±3 dB
Signal-to-noise Ratio	>70 dB
Audio Distortion	<1%
Audio Inputs	Three (3) 3.5mm stereo jack
DC Power Input	5 V / 1.0 Amp, 0.65mm coaxial barrel DC power jack
USB Power	5 V mini-B USB connector
Mounting	wall or table-top
Dimensions (L x W x H)	4.25" x 3.375" x 4"

INDIVIDUAL COMPONENTS

Part Number	Description
IRMC	IR Media Connector with cables and power supply
PS-5V-1.0	Power supply for IR Media Connector
CA-MCPCKIT	iRMC Audio Cable Kit (includes USB cable)
PS-5V-1.0-INT	Power Supply for iRMC with International Plug Attachments

5-year Limited Warranty

Lightspeed Infrared Audio Systems and optional accessories are warranted against malfunction due to defect in materials and workmanship for a period of five (5) years from date of purchase. System components will be repaired or replaced at Lightspeed's option. Rechargeable batteries and connecting cables are guaranteed for one (1) year. Warranty does not extend to finish, appearance, or malfunctions due to abuse or misuse. Repairs performed by other than Lightspeed Technologies will void this warranty.

For warranty service, including return shipping labels, please contact Lightspeed's Service Department at 800.732.8999 / service@lightspeed-tek.com.

Our Service Department will handle all your repair/replacement needs.
800.732.8999, 5 a.m. – 5 p.m., PST

USER NOTES

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lightspeed™

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LIGHTSPEED TECHNOLOGIES
11509 SW Herman Rd / Tualatin, OR 97062
TOLL FREE: 800.732.8999 / PHONE: 503.684.5538 / FAX: 503.684.3197
LIGHTSPEED-TEK.COM